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UTILITY PATENT APPLICATION TRANSMITTAL (Only for new nonprovisional applications under 37 CFR 1.53(b))	Attorney Docket No.	HON785134	Total Pages	14
	First Named Inventor or Application Identifier			
	KOTTMAN, Mark A.			
	Express Mail Label No.	EK706008032US		

APPLICATION ELEMENTS See MPEP chapter 600 concerning utility patent application contents.	ADDRESS TO: Assistant Commissioner for Patents Box Patent Application Washington, DC 20231
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<p>1. <input checked="" type="checkbox"/> Fee Transmittal Form (Submit an original, and a duplicate for fee processing)</p> <p>2. <input checked="" type="checkbox"/> Specification [Total Pages 8] (preferred arrangement set forth below)</p> <ul style="list-style-type: none">- Descriptive title of the invention- Cross References to Related Applications- Statement Regarding Fed sponsored R & D- Reference to Microfiche Appendix- Background of the invention- Brief Summary of the invention- Brief Description of the Drawings (if filed)- Detailed Description- Claim(s)- Abstract of the Disclosure <p>3. <input checked="" type="checkbox"/> Drawing(s) (35 USC 113) [Total Sheets 3]</p> <p>4. Oath or Declaration [Total Pages]</p> <ul style="list-style-type: none">a. <input type="checkbox"/> Newly executed (original or copy)b. <input type="checkbox"/> Copy from a prior application (37 CFR 1.63(d)) (for continuation/divisional with Box 17 completed) (Note Box 5 below)i. <input type="checkbox"/> DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b). <p>5. <input type="checkbox"/> Incorporation By Reference (useable if Box 4b is checked) The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.</p>	<p>6. <input type="checkbox"/> Microfiche Computer Program (Appendix)</p> <p>7. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)</p> <ul style="list-style-type: none">a. <input type="checkbox"/> Computer Readable Copyb. <input type="checkbox"/> Paper Copy (identical to computer copy)c. <input type="checkbox"/> Statement verifying identity of above copies
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ACCOMPANYING APPLICATION PARTS	
8. <input type="checkbox"/> Assignment Papers (cover sheet & document(s))	
9. <input type="checkbox"/> 37 CFR 3.73(b) Statement (when there is an assignee)	<input type="checkbox"/> Power of Attorney
10. <input type="checkbox"/> English Translation Document (if applicable)	
11. <input type="checkbox"/> Information Disclosure Statement (IDS)/PTO-1449	<input type="checkbox"/> Copies of IDS Citations
12. <input type="checkbox"/> Preliminary Amendment	
13. <input checked="" type="checkbox"/> Return Receipt Postcard (MPEP 503) (Should be specifically itemized)	
14. <input type="checkbox"/> Small Entity Statement filed in prior application.	<input type="checkbox"/> Status still proper and desired
15. <input type="checkbox"/> Certified Copy of Priority Document(s) (if foreign priority is claimed)	
16. <input type="checkbox"/> Other:	

17. If a CONTINUING APPLICATION, check appropriate box and supply the requisite information:

<input type="checkbox"/> Continuation	<input type="checkbox"/> Divisional	<input type="checkbox"/> Continuation-in-part (CIP)	of prior application No: _____/_____
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18. CORRESPONDENCE ADDRESS

<input type="checkbox"/> Customer Number or Bar Code Label	(Insert Customer No. or Attach bar code label here)	or <input checked="" type="checkbox"/> Correspondence address below
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COUNTRY	USA	TELEPHONE	312/782-3939	FAX	312/782-8585

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FEE TRANSMITTAL

Note: Effective October 1, 1997.
Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT (\$ 710.00

Complete If Known

Application Number	
Filing Date	
First Named Inventor	KOTTMAN, Mark A.
Group Art Unit	
Examiner Name	
Attorney Docket Number	HON785134

METHOD OF PAYMENT (check one)

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any over payments to

Deposit Account Number 10-1202

Deposit Account Name Jones, Day, Reavis & Pogue

☒ Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17 ☐ Charge the Issue Fee Set in 37 CFR 1.18 at the Mailing of the Notice of Allowance

2. ☒ Payment Enclosed:

☒ Check ☐ Money Order ☐ Other

FEE CALCULATION

1. FILING FEE

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
101 790	201 395	Utility filing fee	710.00
106 330	206 165	Design filing fee	
107 540	207 270	Plant filing fee	
108 790	208 395	Reissue filing fee	
114 160	214 75	Provisional filing fee	
SUBTOTAL (1) (\$)			710.00

2. CLAIMS

Total Claims	Extra	Fee from below	Fee Paid
6 -20 =	0	X	0
Independent Claims 2 -3 =	0	X	0
Multiple Dependent Claims		X	

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
103 22	203 11	Claims in excess of 20
102 82	202 41	Independent claims in excess of 3
104 270	204 135	Multiple dependent claim
109 82	209 41	Reissue independent claims over original patent
110 22	210 11	Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$ 0

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
105 130	205 65	Surcharge - late filing fee or oath	
127 50	227 25	Surcharge - late provisional filing fee or cover sheet	
139 130	139 130	Non-English specification	
147 2,520	147 2,520	For filing a request for reexamination	
112 920*	112 920*	Requesting publication of SIR prior to Examiner action	
113 1,840*	113 1,840*	Requesting publication of SIR after Examiner action	
115 110	215 55	Extension for reply within first month	
116 400	216 200	Extension for reply within second month	
117 650	217 475	Extension for reply within third month	
118 1,510	218 755	Extension for reply within fourth month	
128 2,060	228 1,030	Extension for reply within fifth month	
119 310	219 155	Notice of Appeal	
120 310	220 155	Filing a brief in support of an appeal	
121 270	221 135	Request for oral hearing	
138 1,510	138 1,510	Petition to institute a public use proceeding	
140 110	240 55	Petition to revive - unavoidable	
141 1,320	241 660	Petition to revive - unintentional	
142 1,320	242 660	Utility issue fee (or reissue)	
143 450	243 225	Design issue fee	
144 670	244 335	Plant issue fee	
122 130	122 130	Petitions to the Commissioner	
123 50	123 50	Petitions related to provisional applications	
126 240	126 240	Submission of Information Disclosure Stmt	
581 40	581 40	Recording each patent assignment per property (times number of properties)	
146 790	246 395	Filing a submission after final rejection (37 CFR 1.129(a))	
149 790	249 395	For each additional invention to be examined (37 CFR 1.129(b))	

Other fee (specify) _____

Other fee (specify) _____

* Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$

SUBMITTED BY

Typed or Printed Name Russell L. McIlwain

Signature [Signature]

Date 10/6/00

Complete (if applicable)

Reg. Number 28,641

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MODULAR WALL PANEL CONSTRUCTION

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates generally to a method and apparatus for installing modular wall panels of the type used in office environments and, more particularly, to a method and apparatus for quickly and conveniently leveling modular wall panels during installation.

2. Description of the Related Art

Modular wall panel systems have become increasingly popular as a means for dividing space in modern offices. Such systems offer the advantage that space can be conveniently reconfigured as the needs of the office environment change. They can be added to, changed in space dimensions and moved with relatively little manual labor and office disruption as compared to permanent partition construction. An example of a modular wall panel system is disclosed in U.S. Patent No. 4,685,255 issued to Kelley. A typical modular wall panel comprises a metal frame to which one or more decorative panels are attached. The decorative panels are often fabric covered to lend a pleasing aesthetic appearance to the system. The panels may also be provided with internal cable routing means for convenient connection of telecommunications and/or electrically operated equipment. Also typical of the panels is that the frames are provided with means for supporting shelving, cabinets and work surfaces or the like.

In the installation of a modular wall panel system, care must be taken to level the individual panels on the supporting floor surface in order to properly align the vertical edges of the panels so they can be connected together as a unit. To this end, most modular wall panels are equipped with vertically adjustable floor glides, usually one each on opposite sides of the panels along the bottom of the panel. However, a problem encountered with known floor glides as used on modular wall panels is that they are difficult to access for adjustability. Typically, the usual floor glide has a threaded stem which is adjustable using a wrench from beneath the panel and is slow to adjust because the wrench can be moved only through a small range of stem rotation at a time. Often the stem is obscured from view and the installer must rotate the stem by manual feel alone. Modular wall panel systems exist in which the panels are leveled while the leveling means is easily accessible such as from top access. An example of such a system is disclosed in U.S. Patent No. 4,120,124 issued to Temple et al. and assigned to the assignee herein. However, in such a system the framework of the panel must essentially be assembled in individual pieces making the panel system time consuming to construct on site.

It is therefore desirable to provide a modular panel system that requires only minimal assembly at the site thus reducing labor necessary for installation. It is further desirable to provide such a panel system which is constructed with floor glides that are easily adjusted such that an assembly of panels can be readily leveled on a supporting floor surface to evenly distribute the load across the individual panels. Still further it is desirable to provide such a panel system that is manufacturable by conventional techniques, is aesthetical pleasing in appearance and is cost-effective to produce.

SUMMARY OF THE INVENTION

The present invention improves over the prior art by providing a modular wall panel assembly including a generally rectangular preassembled frame having a generally horizontal lower channel member and a base rail secured to the lower channel member in parallel spaced relation thereto. Two opposed floor glide assemblies are secured to the base rail and each includes an upwardly directed threaded stem configured at their upper ends to be rotated by a suitable rotary tool. An aperture is provided in the lower channel member in registry with each stem. The frame can thus be leveled on a floor by inserting a rotary tool vertically through the apertures and rotating the threaded stems as desired. Thereafter, decorative or other panels may be conveniently installed on the frame to substantially conceal the floor glides.

BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing and other novel features and advantages of the invention will be better understood upon a reading of the following detailed description taken in conjunction with the accompanying drawings wherein:

FIG. 1 is a front perspective view of an assembled modular wall panel constructed in accordance with the principles of the invention;

FIG. 2 is a front perspective view of the wall panel assembly illustrated in FIG. 1 shown with its decorative panels or tiles removed; and

FIG. 3 is an enlarged fractional perspective view of the bottom right corner of the panel assembly illustrated in FIG. 2.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawing, and initially to FIG. 1, a modular wall panel assembly is designated generally by the reference numeral 10 and includes as its principal components a generally rectangular preassembled frame 12, which will more readily be seen in detail in FIG. 2, to which an upper decorative panel 14 has been detachably secured. In a manner well-known in the art the panel 14 may be fabric covered with any desirable material for sound deadening and aesthetic appearance. The modular panel 10 is constructed as to be readily connected along side rails 16 to other similar panels to create a system of space dividing partitions suitable for an office environment. Along the bottom of the panel 10 a kick plate 18 may be detachably secured to the frame 12. A pair of floor glides 20 project downwardly from the panel 10 beneath the kick plate 18 as will be described in detail hereinafter.

Turning now to FIG. 2, the panel 10 is illustrated with the decorative panel 14 and kick plate 18 removed showing in detail the construction of the frame 12. The side rails 16 are connected to an upper channel member 22 and a lower channel member 24 as by welding, for example. An intermediate channel member 26 may be provided for strength and also to support various electrical or telecommunications devices internal to the panel 10. The assembly 10 also includes a base rail 30.

Referring to FIG. 3, the bottom right corner of the assembly 10 shown in FIG. 2 is illustrated in enlarged perspective. In this view, which is a mirror image of the opposite left-hand corner, the base rail 30 can be seen to be connected by a generally L-shaped glide tower 32 to the lower channel member 24. The glide tower 32 has an internally threaded portion 34 which threadedly receives a stem 36 of a floor glide 20. The bottom end of each floor glide 20 is

provided with a foot pad 38. Upper ends 40 of the stems 36 are configured in the illustrated embodiment with a hex head. Alternatively, the upper ends 40 of the stems 36 may be provided with screw driver slots or Torx recesses. An aperture 42 is formed in the lower channel member 24 in registry with each upper end 40 of the stems 36.

Installation of a modular panel system utilizing the panels of the present invention can now be appreciated to be a convenient and labor saving process over installation of prior art systems. The panel assemblies illustrated in FIG. 2 can be preassembled as modular units at a factory for example and conveniently shipped to the installation site. The assemblies may be placed upright on a floor at their approximate intended location. An installer may then level the assemblies such as by placing a carpenter's level on the lower channel member 24 and adjusting the height of the floor glides 20 using a ratchet wrench or cordless drill having a bit inserted vertically through the apertures 42 of the channel member 24. Once the assemblies are leveled the decorative panels 14 and kick plate 18 may be installed. For this purpose the frame 12 may preferably be provided with spaced apertures 44 which receive snap-fit fasteners suitably attached to the backs of the panels 14 and kick plates 18. Thus, the panel system using the present panels 10 is convenient and quick to install.

While the present invention has been described in connection with a preferred embodiment thereof, it will be apparent to those skilled in the art that many changes and modifications may be made without departing from the true spirit and scope of the present invention. Accordingly, it is intended by the appended claims to cover all such changes and modifications as come within the spirit and scope of the invention.

WHAT IS CLAIMED IS:

1. A method for constructing and installing a modular wall panel assembly comprising the steps of:
 - forming a generally rectangular frame comprising rigid channel members including a lower generally horizontal channel member;
 - providing a base rail and securing said base rail to said lower channel member in spaced parallel relation thereto;
 - providing a pair of glide assemblies on opposite ends of said base rail, said glide assemblies each including a generally vertically oriented threaded member threadedly connected to said glide assemblies;
 - providing a pair of apertures in said lower channel member each aperture overlying and in registry with a threaded member;
 - placing said frame, base rail and glide assemblies in vertical orientation on a floor;
 - inserting a rotary tool vertically through said apertures to engage said threaded members; and
 - rotating said threaded members selectively to thereby level said frame on said floor.
2. The method of claim 1 including the step of attaching decorative panel members to said frame after said frame has been leveled.
3. The method of claim 1 including the step of attaching a base panel member to said lower channel member and base rail to conceal said glide assemblies.

4. A modular wall panel assembly comprising:

a generally rectangular frame including a generally horizontal lower channel member;

a base rail secured to said lower channel member in parallel spaced relation thereto;

at least two opposed glide assemblies secured to said base rail, said glide assemblies each including an upwardly directed threaded member;

an aperture in said lower channel member in registry with each threaded member;

wherein said frame can be leveled on a floor by inserting a rotary tool vertically through said apertures and rotating said threaded members of said threaded assemblies.
5. The wall panel assembly of claim 4 including decorative panel members secured to said frame.
6. The wall panel assembly of claim 4 including a base panel member secured to said lower channel and said base rail.

ABSTRACT OF THE DISCLOSURE

A modular wall panel assembly includes a generally rectangular preassembled frame having a generally horizontal lower channel member and a base rail secured to the lower channel member in parallel spaced relation thereto. Two opposed floor glide assemblies are secured to the base rail and each includes an upwardly directed threaded stem configured at their upper ends to be rotated by a suitable rotary tool. An aperture is provided in the lower channel member in registry with each stem. The frame can thus be leveled on a floor by inserting a rotary tool vertically through the apertures and rotating the threaded stems as desired. Thereafter, decorative or other panels may be conveniently installed on the frame to substantially conceal the floor glides.

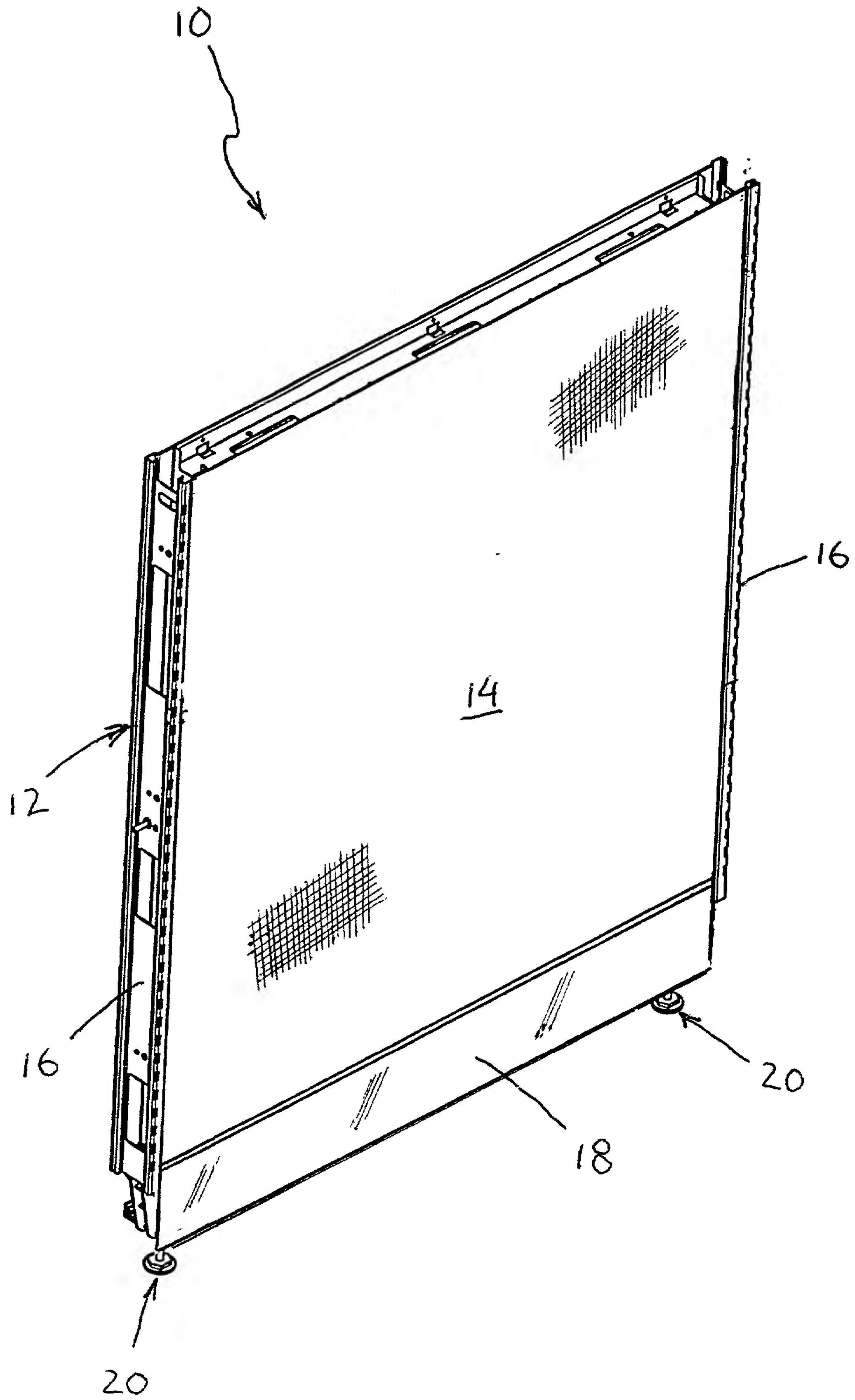


Fig. 1

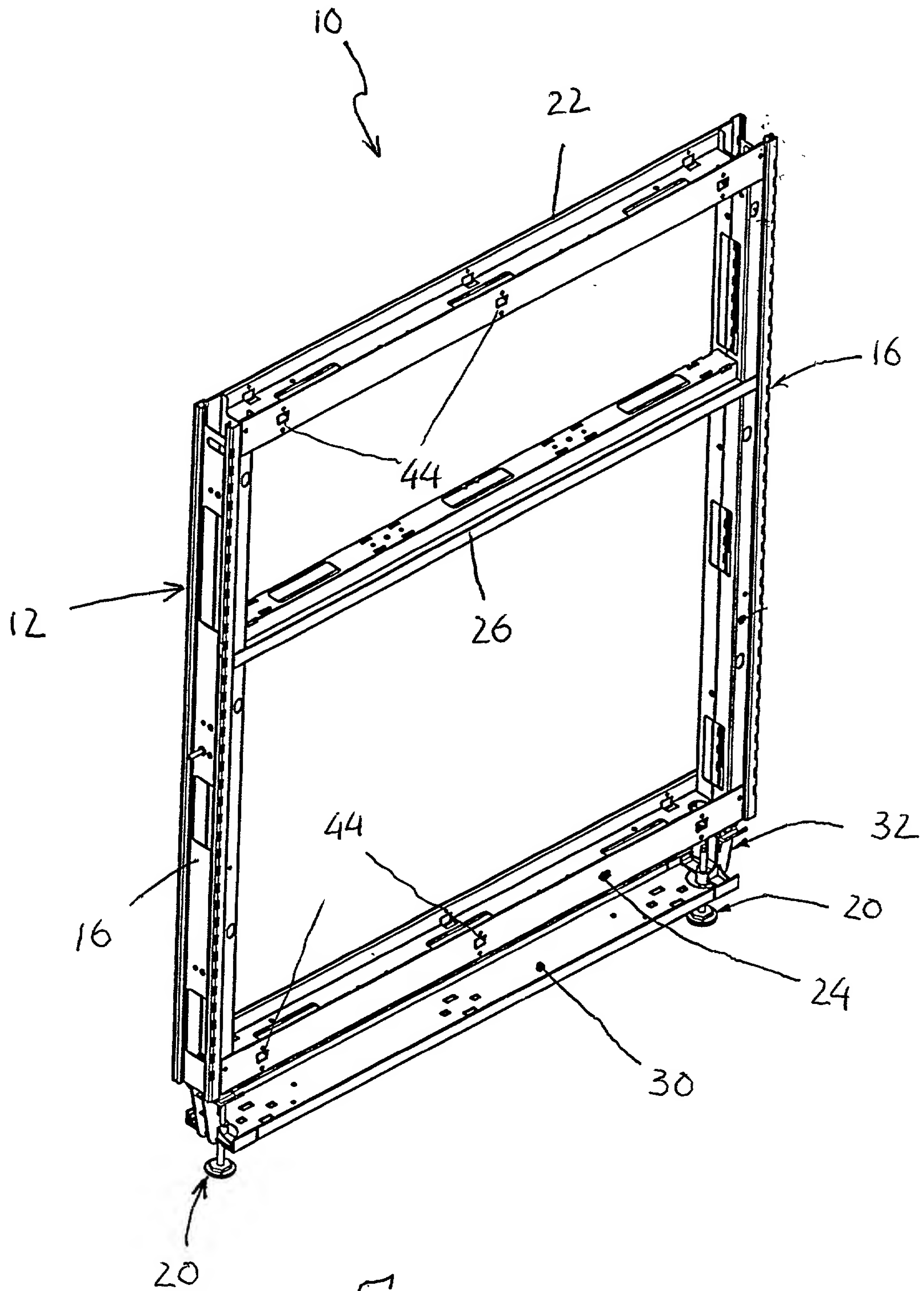


Fig. 2

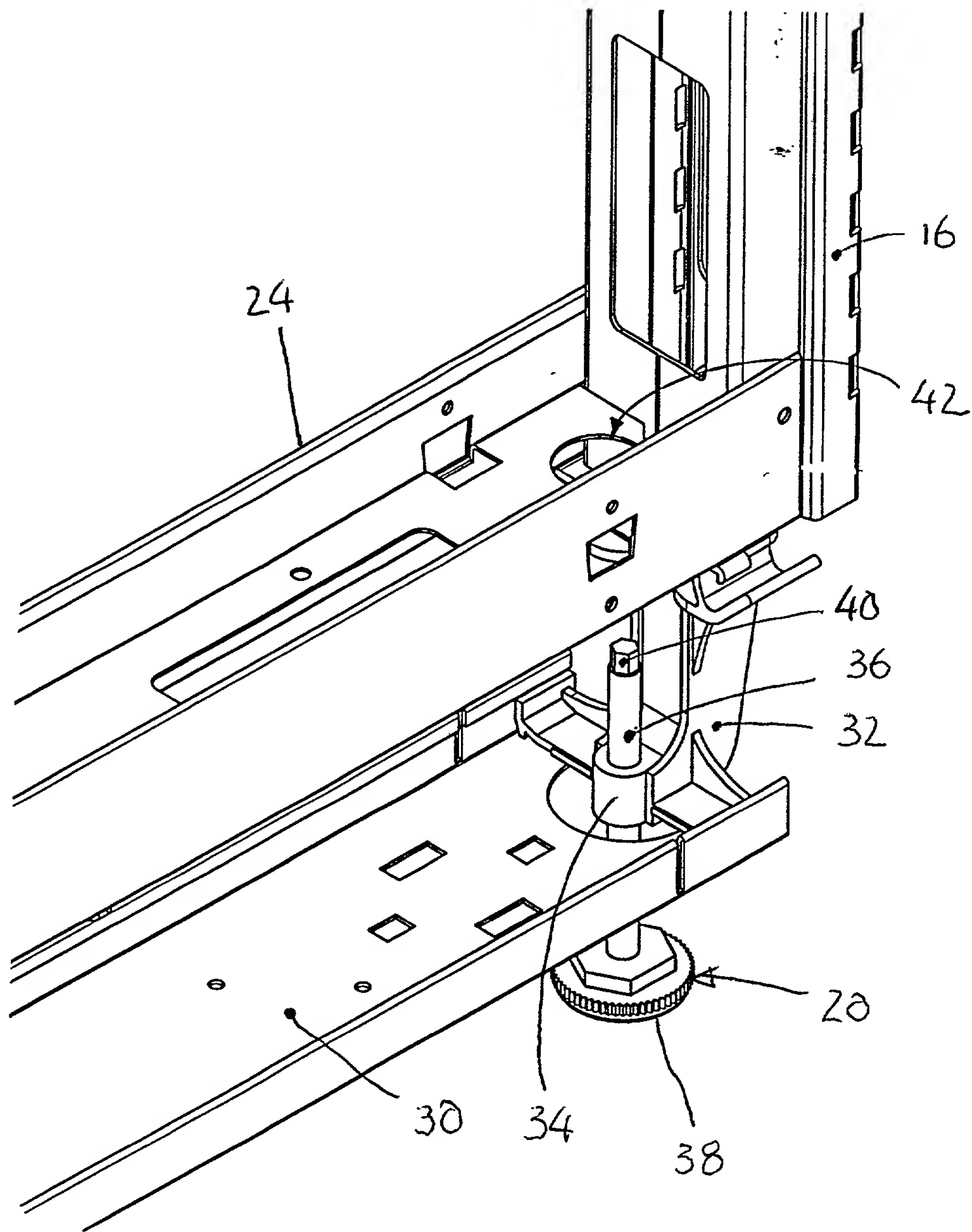


Fig. 3